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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/075,786

02/13/2002

John E. Holland

3781-002 (03781.0024.1)

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03/13/2008

WOMBLE CARLYLE SANDRIDGE & RICE, PLLC

ATTN: PATENT DOCKETING 32ND FLOOR

P.O. BOX 7037

ATLANTA, GA 30357-0037

EXAMINER

MAYO III, WILLIAM H

ART UNIT

PAPER NUMBER

2831

MAIL DATE

DELIVERY MODE

03/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/075,786

Applicant(s)

HOLLAND ET AL.

Examiner

William H. Mayo III

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-13, 27-29 and 32-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13, 27-29 and 32-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on December 13, 2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, 6-13, 27-29, and 32-40 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claims 1, 27, and 40 the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-3, 6-9, 27-29, and 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrieu (Pat Num 5,300,337) in view of Andrews (Pat Num 5,965,223, herein referred to as Andrews). Andrieu discloses a protective cover (Figs

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1-4) for cables or hoses (abstract), which are capable of being used in environments, such as airports, docks, and construction sites, wherein the cover (Figs 1-4) may be subject to abrasion and weather extremes (i.e. heat, Col 1, lines 12-20). Specifically, with respect to claim 1, Andrieu discloses a protective cover (10) comprising a sleeve (Figs 1-2, Col 3, lines 55-59) capable of surrounding a cable or hose (abstract, Fig 4), wherein the sleeve has open ends (left and right ends) and is formed of a fabric (10) made of substantially high strength yarn (11, i.e. polyester, Col 3, lines 8-12), wherein the sleeve is abrasion and moisture-resistant (Col 1, lines 12-20). With respect to claim 2, Andrieu discloses that the fabric (11) is formed from at least 70 percent high strength yarns (i.e. 100 % polyester). With respect to claim 6, Andrieu discloses that the high strength yarn (11, i.e. polyester) is about 400 to 1000 denier (i.e. 600-2500, Col 3, lines 60-67). With respect to claim 7, Andrieu discloses that the fabric covering (10) has a warp and fill density of about 40 ends per inch (Col 4, lines 1-10). With respect to claim 8, Andrieu discloses that the sleeve (Fig 1) is formed as an elongated sheet having opposing longitudinal edges (top and bottom edges), wherein the opposed longitudinal edges (top and bottom edges) includes means (15) for releasably attaching the opposed longitudinally edges together (Col 4, lines 24-31) around the length of a cable or hose (abstract, Fig 4). With respect to claim 9, Andrieu discloses that the means (15) for fastening the longitudinal edges comprises hook and loop material (see 15, Col 4, lines 35-47). With respect to claim 27, Andrieu discloses an abrasion resistant cable system (Fig 4) comprising a length of material such as a cable (not numbered) that is subject to being periodically moved across abrasion surfaces (Col 1, lines 12-20) and a

protective sleeve (10) surrounding the cable, which is formed from a fabric made of substantially high performance yarn (i.e. polyester), has open ends (left and right ends) and is formed of a fabric (10) made of substantially high strength yarn (11, i.e. polyester, Col 3, lines 8-12), wherein the sleeve is abrasion and moisture-resistant (Col 1, lines 12-20). With respect to claim 28, Andrieu discloses that the fabric (11) is formed from at least 70 percent high strength yarns (i.e. 100 % polyester). With respect to claim 32, Andrieu discloses that the high strength yarn (11, i.e. polyester) is about 400 to 1000 denier (i.e. 600-2500, Col 3, lines 60-67). With respect to claim 33, Andrieu discloses that the fabric covering (10) has a warp and fill density of about 40 ends per inch (Col 4, lines 1-10). With respect to claim 34, Andrieu discloses that the sleeve (Fig 1) is formed as an elongated sheet having opposing longitudinal edges (top and bottom edges), wherein the opposed longitudinal edges (top and bottom edges) includes means (15) for releasably attaching the opposed longitudinally edges together (Col 4, lines 24-31) around the length of a cable or hose (abstract, Fig 4). With respect to claim 35, Andrieu discloses that the means (15) for fastening the longitudinal edges comprises hook and loop material (see 15, Col 4, lines 35-47).

However, Andrieu doesn't necessarily disclose the protective cover being made of a yarns formed of primarily of long chain polyethylene fibers having a tensile modulus equal to or greater than 150g/denier and a tenacity equal to or greater than 7 grams/denier, wherein the yarns are cut and tear resistant and has a thermoplastic film selected from the group of polyethylene and ethylene vinyl acetate film bonded to at the outer surface thereof (claims 1 & 27), nor the yarns being long chain polyethylene yarns

(claims 6 & 32), nor the protective cover being made of a material fabric having a weight of between of between about 5 & 8 ounces per square yard (claims 3 & 29), nor the fabric density of between about 30 and 36 inches per inch (claims 7 & 33).

Andrews teaches a composite protective cover, that is cut and abrasion resistant (Col 2-3, lines 40-43 & 22-24 respectively), and may be utilized as a tube of jacketing material for tubing, hoses, and electrical wires (Col 2, lines 38-40), has minimal weight, provides greater tactile sensitivity, improved comfort, and enhanced freedom of motion (Col 4, lines 53-57). Specifically, with respect to claims 1, 6, 27, and 32, Andrew teaches that the composite protective cover comprising an inner layer (13) bonded to an outer layer (11, Col 5, lines 45-52), wherein the inner layer (13) may be made of high performance yarns, such as Spectra® ultra high molecular weight extended chain polyethylene (Col 4, lines 15-19) and an outer layer (11) that may be polyethylene (PE) or ethylene vinyl acetate (EVA, Col 3, lines 55-59) that inherently has a tensile modulus equal to or greater than 150g/denier and a tenacity equal to or greater than 7 grams/denier(i.e. the applicant has disclosed that Spectra® ultra high molecular weight extended chain polyethylene is a material having such characteristics). With respect to claims 3 & 29, Andrew teaches that the protective cover Fig 1), may comprise Spectra® ultra high molecular weight extended chain polyethylene (Col 4, lines 15-19) which inherently has a weight of between about 5 & 8 ounces per square yard (i.e. the applicant has disclosed that Spectra® ultra high molecular weight extended chain polyethylene is a material having such characteristics). With respect to claims 7 & 33, Andrew teaches that the fabric may be constructed of Spectra® ultra high molecular

weight extended chain polyethylene which inherently has a warp and fill density of between 30 and 36 ends per inch (i.e. the applicant has disclosed that Spectra® ultra high molecular weight extended chain polyethylene is a material having such characteristics).

With respect to claims 1, 3, 6, 27, 29, and 32-33, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the protective cover, which is made of polyester fibers, of Andrieu to comprise the composite fabric of Spectra® fibers and PE or EVA, inherently having the fabric parameters of the protective fabric as taught by Andrew because Andrew teaches that such a fabric by made of commercially available Spectra® fibers that are cut and abrasion resistant (Col 2-3, lines 40-43 & 22-24 respectively), and may be utilized as a tube of jacketing material for tubing, hoses, and electrical wires (Col 2, lines 38-40), has minimal weight, provides greater tactile sensitivity, improved comfort, and enhanced freedom of motion (Col 4, lines 53-57) and since it has been held to be within general skill of a worker in the art to select a commercially available or known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

9. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ratigan (Pat Num 5,441,790) in view of Andrews (Pat Num 5,965,223). Ratigan discloses a protective cover (1) for use with a rope (Figs 1-4), and which is used in environments in which lengths of the rope are subject to abrasion (Col 1, lines 5-10). Specifically, with respect to claim 40, Ratigan discloses an abrasion resistant rope (5) of the type that is

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capable of periodically moved across abrasive surfaces (Col 1, lines 62-68) comprising a sleeve (Fig 1) surrounding a length of a rope (5), wherein the sleeve (Fig 1) is formed of a fabric (i.e. textile material) made of substantially high strength yarn (i.e. polyester fibers, Col 2, lines 1-3).

However, Ratigan doesn't necessarily disclose the protective cover being made of a high performance yarns formed of primarily of long chain polyethylene fibers having a tensile modulus equal to or greater than 150g/denier and a tenacity equal to or greater than 7 grams/denier, wherein the yarns are cut and tear resistant and has a thermoplastic film selected from the group of polyethylene and ethylene vinyl acetate film bonded to at the outer surface thereof (claim 40).

Andrews teaches a composite protective cover, that is cut and abrasion resistant (Col 2-3, lines 40-43 & 22-24 respectively), and may be utilized as a tube of jacketing material for tubing, hoses, and electrical wires (Col 2, lines 38-40), has minimal weight, provides greater tactile sensitivity, improved comfort, and enhanced freedom of motion (Col 4, lines 53-57). Specifically, with respect to claim 40, Andrew teaches that the composite protective cover comprising an inner layer (13) bonded to an outer layer (11, Col 5, lines 45-52), wherein the inner layer (13) may be made of high performance yarns, such as Spectra® ultra high molecular weight extended chain polyethylene (Col 4, lines 15-19) and an outer layer (11) that may be polyethylene (PE) or ethylene vinyl acetate (EVA, Col 3, lines 55-59) that inherently has a tensile modulus equal to or greater than 150g/denier and a tenacity equal to or greater than 7 grams/denier(i.e. the

applicant has disclosed that Spectra® ultra high molecular weight extended chain polyethylene is a material having such characteristics).

With respect to claim 40, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the protective cover, which is made of polyester fibers, of Ratigan to comprise the composite fabric of Spectra® fibers and PE or EVA, inherently having the fabric parameters of the protective fabric as taught by Andrew because Andrew teaches that such a fabric by made of commercially available Spectra® fibers that are cut and abrasion resistant (Col 2-3, lines 40-43 & 22-24 respectively), and may be utilized as a tube of jacketing material for tubing, hoses, and electrical wires (Col 2, lines 38-40), has minimal weight, provides greater tactile sensitivity, improved comfort, and enhanced freedom of motion (Col 4, lines 53-57) and since it has been held to be within general skill of a worker in the art to select a commercially available or known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

10. Claims 10-12 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrieu (Pat Num 5,300,337) in view of Andrews (Pat Num 5,965,223), herein referred to as modified Andrieu), as applied to claims 1 and 27 above, further in view of Kite, III et al (Pat Num 4,891,256, herein referred to as Kite). Modified Andrieu discloses a protective cover (Figs 1-4) for cables or hoses (abstract), which are capable of being used in environments wherein the cover (Figs 1-4) may be subject to abrasion and weather extremes (i.e. heat, Col 1, lines 12-20) as described above. Specifically, with respect to claim 10, modified Andrieu discloses a protective

cover (10) comprising a sleeve (Figs 1-2, Col 3, lines 55-59) capable of surrounding a cable or hose (abstract, Fig 4). With respect to claim 11, modified Andrieu discloses that the sleeve (Fig 1) is formed having opposing longitudinal edges (top and bottom edges), wherein the opposed longitudinal edges (top and bottom edges) includes means (15) for releasably attaching the opposed longitudinally edges together (Col 4, lines 24-31) around the length of a cable or hose (abstract, Fig 4). With respect to claim 12, modified Andrieu discloses that the means (15) for fastening the longitudinal edges comprises hook and loop material (see 15, Col 4, lines 35-47). With respect to claim 36, modified Andrieu discloses a protective cover (10) comprising a sleeve (Figs 1-2, Col 3, lines 55-59) capable of surrounding a cable or hose (abstract, Fig 4). With respect to claim 37, modified Andrieu discloses that the sleeve (Fig 1) is formed having opposing longitudinal edges (top and bottom edges), wherein the opposed longitudinal edges (top and bottom edges) includes means (15) for releasably attaching the opposed longitudinally edges together (Col 4, lines 24-31) around the length of a cable or hose (abstract, Fig 4). With respect to claim 38, modified Andrieu discloses that the means (15) for fastening the longitudinal edges comprises hook and loop material (see 15, Col 4, lines 35-47).

However, modified Andrieu doesn't necessarily disclose the sleeve being a plurality of bands comprising a short length of the fabric and being spaced apart along the length of the cable or hose (claims 10 & 36), nor each band having opposed longitudinally edges including means for fastening the opposed longitudinally edges together around the length of the cable (claims 11 & 37).

Kite teaches a wraparound closure device (Figs 1-4) made of a fabric that protects elongated substrates, such as cables, from abrasion (Col 1, lines 5-10). Specifically, with respect to claims 10 & 36, Kite teaches a wraparound sleeve (10-Fig 3) that may be made of polyester (Col 4, line 49-50) and is formed as a plurality of bands (see three fabric sleeves not numbered) wherein each band comprises a short length of the fabric which are spaced apart along the length of the cable (Fig 3) for the purpose of providing effective bundling device that accommodates multiple cable break-outs (Col 1, lines 38-45). With respect to claims 11 & 37, Kite teaches that each short length of fabric (see 3 section of fabric, Fig 3) having opposed longitudinally edges (left and right sides of all three fabrics) wherein the opposed longitudinally edges has means (24, 30, & 32) for fastening the opposed longitudinally edges together around a length of the cable (Fig 3).

With respect to claims 10-11 & 36-37, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the polyester protective cover of modified Andrieu to comprise a multiple protective covers as taught by the Kite because Kite teaches that such a fabric configuration protects elongated articles from abrasion (Col 4, lines 5-8) and provides effective bundling device that accommodates multiple cable break-outs (Col 1, lines 38-45) and since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. (*St. Regis Paper Co v. Bemis Co.*, 193 USPQ 8).

11. Claims 13 & 39 rejected under 35 U.S.C. 103(a) as being unpatentable over Andrieu (Pat Num 5,300,337) in view of Andrews (Pat Num 5,965,223, herein referred

to as modified Andrieu), as applied to claims 1 and 27 above, further in view of Holt et al (Pat Num 5,070,597, herein referred to as Holt). Modified Andrieu discloses a protective cover (Figs 1-4) for cables or hoses (abstract), which are capable of being used in environments wherein the cover (Figs 1-4) may be subject to abrasion and weather extremes (i.e. heat, Col 1, lines 12-20) as detailed above with reference to claims 1 & 27.

However, modified Andrieu doesn't necessarily disclose the protective cover further comprising a hood made of the same fabric and fastened to at least one end of the sleeve for protecting the exposed end of the cable or hose (claims 13 & 39).

Holt teaches a double wall protective cover (Figs 1-19b) comprising flame retardant, abrasion resistance, and split or tear resistance (Col 18, lines 21-26), for the purpose of providing environmental protection, including electrical protection, and joining or mechanical holding of substrates such as cables or pipes (Col 1, lines 17-21). Specifically, with respect to claims 13 & 39, Holt discloses that the protective cover (Figs 1-19b) may be formed of polyester (Col 7, line 36) and as a hood (i.e. end cap, 19, Figs 6a-d), wherein the hood (19) may be fastened to at least one end of the cable or pipe (22) for protecting the exposed end of the cable or pipe (22, Col 29, lines 23-24).

With respect to claims 13 & 39, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the cable or pipe assembly of modified Andrieu to comprise a end cap protective cover formed of fabric as taught by the Holt because Holt teaches that fabrics, having excellent flame retardant, abrasion resistance, and split or tear resistance (Col 18, lines 21-26), are

commonly used to protect cables and pipes are sometimes formed as end cap cover configuration that provides environmental protection, including electrical protection for the joining or mechanical holding of substrates such as cables or pipes (Col 1, lines 17-21) and also provides protection for the exposed ends of cables or pipes (Col 29, lines 23-24).

Response to Arguments

12. Applicant's arguments with respect to claims 1-3, 6-13, 27-29, and 32-40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Kobayashi et al (Pat Num 5,445,883), Kavesh et al (Pat Num 4,413,110), Holland et al (Pat Num 6,280,546), and Peacock (Pat Num 4,900,596), all of which disclose various protective covers.

Communication

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245 or (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Mayo III/

William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
March 3, 2008

